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December 28, 2021

The Honorable Chair and Members of
the Hawaii Public Utilities Commission
Kekuanaoa Building
465 South King Street, 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

RE: Docket No. 2017-0122 – In the Matter of the Application of Hawaii Electric Light Company, Inc. of a Power Purchase Agreement for Renewable Dispatchable Firm Energy and Capacity.

The Division of Consumer Advocacy (“Consumer Advocate”) notes although it e-filed its Prehearing Statement of Position (“PH SOP”) on December 21, 2021, pursuant to Order No. 38104 Granting, with Modifications, The Division of Consumer Advocacy’s Motion for Enlargement of Time Filed on December 3, 2021, issued on December 7, 2021, it was recently discovered that its PH SOP does not appear on the Public Utilities Commission’s (“Commission”) Document Management System (“DMS”). As such, based on discussions with Commission staff, the Consumer Advocate is refiling its PH SOP, as attached, in which the Consumer Advocate confirms that the PH SOP was served upon the Parties and Participants through electronic mail service on December 21, 2021.¹

¹

The Parties and Participants to the subject proceeding are Hawaii Electric Light Company, Inc., Hu Honua Bioenergy, LLC, the Consumer Advocate, Life of the Land, Tawhiri, LLC, and Hamakua Energy, LLC.

The Honorable Chair and Members of
The Hawaii Public Utilities Commission
December 28, 2021
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The Consumer Advocate apologizes for any inconvenience this may have caused the Commission and appreciates the Commission's attention on this matter.

Sincerely,

/s/ Dean Nishina
Dean Nishina
Executive Director

DN: te

cc: Dean K. Matsuura, Brendan Bailey
David M. Louie, Joseph A. Stewart, Aaron R. Mun
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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of)
HAWAII ELECTRIC LIGHT COMPANY, INC.)
For Approval of a Power Purchase)
Agreement for Renewable Dispatchable)
Firm Energy and Capacity.)

DOCKET NO. 2017-0122

DIVISION OF CONSUMER ADVOCACY'S
STATEMENT OF POSITION

Pursuant to the Hawaii Public Utilities Commission's ("Commission") Order No. 38104 Granting, with Modifications, The Division of Consumer Advocacy's Motion for Enlargement of Time Filed on December 3, 2021, issued on December 7, 2021 ("Order No. 38104"), the Division of Consumer Advocacy ("Consumer Advocate") provides its prehearing statement of position.

I. BACKGROUND.

The Hu Honua biomass project ("Project") has an extensive history, in which the Commission granted a request by Hawaiian Electric Company, Inc. and Hawaii Electric Light Company, Inc. ("Hawaii Electric Light" or the "Company") to waive the Hu Honua

Bioenergy, LLC (“Hu Honua”) biomass energy project from the Competitive Bidding Framework,¹ in Docket No. 2008-0143, subject to certain conditions (“Original Waiver”).² On December 20, 2013, the Commission issued Decision and Order No. 31758 in Docket No. 2012-0212, approving Hawaii Electric Light’s application for approval of, among other things, the Power Purchase Agreement for Renewable Dispatchable Firm Energy and Capacity, dated May 3, 2012 (“Original PPA”).

Subsequently, Hu Honua failed to meet two significant contractual milestones as set forth in the Original PPA: (1) the boiler hydro test date of July 22, 2015; and (2) the commercial operations deadline of January 22, 2016³ project completion milestones, as defined in the Original PPA. On March 4, 2014, Hawaii Electric Light terminated the Original PPA. On May 9, 2017, Hawaii Electric Light filed a letter in Docket No. 2012-0212 (“Letter Request”)⁴ requesting approval of the Amended and Restated Power Purchase

¹ The “Competitive Bidding Framework” or “Framework” refers to the Framework for Competitive Bidding, adopted by the Commission on December 8, 2006, in Docket No. 03-0372.

² See Decision and Order, filed on November 14, 2008, in Docket No. 2008-0143 (“Waiver Order”).

³ See February 16, 2016 letter filed by Hawaii Electric Light in Docket No. 2012-0212.

⁴ In its Letter Request, at 4, Hawaii Electric Light stated that:

The Seller disputed the termination of the PPA and on December 1, 2016, filed a civil action [(Hu Honua v. Hawaiian Electric Industries, Inc., Civil No. CV16-00634)] challenging the validity of the termination, among other claims. The matter is currently pending. On March 13, 2017, the court issued an order scheduling an early settlement conference between the Parties to take place on May 18-19, 2017. In anticipation of the settlement conference, the Parties worked collaboratively and were able to come to agreement on the terms of the Amended and Restated PPA, with the exception of the Contract Price. Provided that the benefits to be provided to customers are sufficient and the Commission approves the preferential pricing sought by the Seller, Hawai’i Electric Light has agreed to rescind the termination of the Original PPA and enter into the Amended and Restated PPA with Hu Honua. The Parties have therefore agreed to enter into a Settlement Agreement by June 20, 2017 on terms and conditions agreeable to both parties and conditioned on the PUC’s timely, non-appealable final approval of the Amended and Restated PPA. The Settlement Agreement will compromise, resolve, settle, terminate, discharge and release all claims, demands, actions or causes of action related to

Agreement for Renewable Dispatchable Firm Energy and Capacity between Hawaii Electric Light and Hu Honua dated May 9, 2017 (“Amended and Restated PPA” or the “A&R PPA”) and forwarding to the Commission Hu Honua’s request for preferential rate for the purchase of renewable energy produced in conjunction with agricultural activities pursuant to HRS § 269-27.3.

On May 17, 2017, the Commission opened this proceeding by Order No. 34554 Opening a Docket to Review and Adjudicate Hawaii Electric Light, Inc.’s Letter Request for Approval of Amended and Restated Power Purchase Agreement, Filed in Docket No. 2012-0212 on May 9, 2017.⁵ On July 28, 2017, the Commission issued Decision and Order No. 34726, granting Hawaii Electric Light a new waiver from the Competitive Bidding Framework (“2017 Waiver”) and approving the Amended and Restated PPA. Participant Life of the Land (“LOL”) appealed Decision and Order No. 34726 to the Hawaii State Supreme Court (“Court”) in Case No. SCOT-17-0000630, In the Matter of the Application of Hawaii Electric Light Company, Inc., 445 P.3d 673 (2019) (“HELCO I”). The Court found that LOL was not offered a meaningful opportunity to present evidence and arguments on greenhouse gas (“GHG”) emissions from the Project, vacated those portions of Decision and Order No. 34726 related to the approval of the Amended and Restated PPA, and remanded the case back to the Commission for further proceedings. In the HELCO I opinion, the Court directed that “[o]n remand, the [Commission] shall give

the termination of the Original PPA as between Hu Honua and the Hawaiian Electric Companies.

⁵ In Docket No. 2012-0212, the Commission transferred the Letter Request by Order No. 34554 Transferred Request for Approval of Amended and Restated Power Purchase Agreement from Docket No. 2012-0212 to Docket No. 2017-0122.

explicit consideration to the reduction of GHG emissions in determining whether to approve the [Amended and Restated] PPA[.]”⁶ Also, the Court found that the Commission’s failure to expressly consider GHG emissions left its determinations that the Amended and Restated PPA costs and terms are reasonable, prudent, in the public interest unsubstantiated.⁷

On June 20, 2019, the Commission issued Order No. 36382 Reopening Docket. On July 9, 2020, the Commission issued Order No. 37205 Dismissing Hawaii Electric Light Company, Inc.’s Request for Waiver and Dismissing Letter Request for Approval of Amended and Restated Power Purchase Agreement (“Order No. 37205”). On October 1, 2020, the Commission issued Order No. 37335 Addressing Outstanding Issues and Closing the Docket. Hu Honua appealed Order No. 37205 arguing that the 2017 Waiver was left undisturbed by the HELCO I opinion and so still in effect; and on May 24, 2021, the Court issued its opinion in Case No. SCOT-20-0000569 (“HELCO II”) finding that the Commission had misinterpreted the HELCO I opinion and remanding the case back for further proceedings consistent with the HELCO I opinion.

On June 30, 2021, the Commission issued Order No. 37852 Reopening the Docket.

On July 12, 2021, Hawaii Electric Light filed a letter stating that it would file updated GHG emissions information as a part of its direct testimonies and exhibits. On September 16, 2021, all parties and participants other than Hamakua Energy filed written direct testimonies and exhibits.

⁶ HELCO I opinion, at 697.

⁷ HELCO I opinion, at 696.

On July 12, LOL filed discovery requests. On July 26, 2021, Hawaii Electric Light and Hu Honua responded to LOL.

On August 11, 2021, the Commission issued Order No. 37910 (1) Denying Life of the Land's Motion for Reconsideration/Clarification of Order No. 37852 Filed July 12, 2021; (2) Denying Tawhiri Power LLC's Motion for Reconsideration of Order No. 37852, Filed June 30, 2021, Filed July 12, 2021; (3) Denying Hu Honua Bioenergy, LLC's Motion for the Commission to Consider Act 82 and Address its Impact on Order No. 37852 Reopening Docket Filed July 20, 2021; (4) Partially Granting the Division of Consumer Advocacy's Motion for Leave to Respond Filed July 23, 2021; and (5) Dismissal All Other Related Procedural Motions ("Order No. 37910").

On October 7, 2021, parties and participants filed discovery requests, to which they replied on October 21, 2021. Hawaii Electric Light supplemented responses to the Consumer Advocate on November 1, 2021.

On October 15, 2021, the Commission submitted discovery to Hu Honua, which responded on October 29, 2021.

On November 4, 2021, parties and participants filed discovery requests, to which they replied on November 18, 2021.

On November 12, 2021, the Commission submitted discovery to Hu Honua and Hawaii Electric Light, to which they responded on November 22, 2021.

On November 22, 2021, the Commission submitted discovery to Hawaii Electric Light, Hu Honua, the Consumer Advocate, and LOL, to which they all responded on December 1, 2021.

On December 15, 2021, the Commission submitted discovery to Hawaii Electric Light and Hu Honua. On December 16, 2021, the Commission submitted discovery to Hu Honua.

II. DISCUSSION.

As set forth in Order No. 37910, the issues in this proceeding are as follows:

1. What are the long-term environmental and public health costs of reliance on energy produced at the proposed facility?
 - a. What is the potential for increased air pollution due to the lifecycle GHG (“greenhouse gas”) emissions of the Project?
2. What are the GHG emissions that would result from approving the Amended PPA?
3. Whether the total costs under the Amended PPA, including but not limited to the energy and capacity costs are reasonable in light of the potential for GHG emissions.
4. Whether the terms of the Amended PPA are prudent and in the public interest, in light of the Amended PPA’s hidden and long-term consequences.

A. WHETHER THE A&R PPA SHOULD BE APPROVED.

As discussed in CA-ST-1, in addressing the fourth issue set forth in Order No. 37910, the Consumer Advocate contends that the Commission should analyze the A&R PPA as part of the anticipated Hawaii island grid throughout the expected life of the proposed Hu Honua Facility’s life. As stated by Witnes Nishina, to facilitate this analysis:

. . . the Company should address the need for the project and the PPA as well as demonstrate the total quantitative and qualitative costs are reasonable, which includes, but is not limited to, the bill impact on customers, the hidden costs of GHG emissions, long-term environmental, and public health costs. The Company should also provide a well-supported analysis of the net benefits that are anticipated, if the A&R PPA is approved.⁸

⁸ CA-ST-1, at 6.

In doing so, it is reasonable to consider current conditions, current prices and other current information in the evaluation of the A&R PPA and the likely impact on customers and that there should first be an evaluation of whether there is a need for the capacity and energy from the Hu Honua facility.⁹

If the Commission determines that there is a need for capacity, then there should be some clarity around what those capacity needs are and what the current prevailing prices or reasonable estimated prices are for that capacity. Similar analyses should be conducted for the prices related energy and grid services. The Consumer Advocate is aware that the Hu Honua facility has been characterized as capable of providing capacity and energy on a 24 hour / 7 day basis. However, if there is no need for such capacity and energy, then such capacity and energy should generally be procured only if it is at cost-effective rates. At this time, however, the need for such capacity has not been supported by recent adequacy of supply reports.¹⁰

The Consumer Advocate's consultant Sawvel & Associates ("Sawvel") assessed Hawaii Electric Light's forecasted generation on its grid.¹¹ Sawvel's primary focus was to independently estimate energy generated from Hawaii Electric Light generators and from Hu Honua for each of the scenarios. This independent review involved reviewing the Hawaii Electric Light production simulation analysis inputs and assumptions and modeling the system with appropriate modifications to the inputs, if such modifications were needed. Sawvel used Hawaii Electric Light's cost information for each scenario to

⁹ CA-ST-1, at 10.

¹⁰ CA-ST-1, at 10.

¹¹ See Supplemental Response to HHB-CA-SIR-16, Exhibit HHB-CA-SIR-16, filed on December 21, 2021 ("Exhibit HHB-CA-SIR-16").

determine the change in energy generated from the Hawaii Electric Light generators when the Hu Honua facility is added to the Hawaii Electric Light generating system. Sawvel reviewed the Hawaii Electric Light production simulation analysis inputs and results that were provided in responses to CA/HELCO-IR-65 through CA/HELCO-IR-68. In general, Hawaii Electric Light's input assumptions seem reasonable for the production simulation cases.

Hawaii Electric Light indicated that it planned to remove Hill 5, Hill 6, and Puna Steam from service. Puna Steam was removed from service after 2024 and Hill 5 and Hill 6 were removed from service after 2026. Hawaii Electric Light's power supply resource plan involves adding Hu Honua in 2022 and adding Solar Photovoltaic, Battery Energy Storage, and Wind resources. The Keahole and Hamakua Energy Partners combined cycle plants, CTs 1, 2 and 3, and all the diesel (reciprocating engines) are converted to biodiesel fuel in 2045.

Hawaii Electric Light modeled its generation system using the PLEXOS software model to estimate the amount of energy that would be generated from each of its energy resources and subsequently the quantity of fuel (MMBtu) by fuel type to provide to Ramboll for its GHG analysis. Hawaii Electric Light modeled the generating system with and without the Puako Solar facility. Then, it modeled each of these scenarios with the Hu Honua facility added to the Hawaii Electric Light generating system. Hawaii Electric Light did not provide the production simulation results for the cases without the Puako Solar facility so the Consumer Advocate was unable to prepare production simulation result comparisons between Hawaii Electric Light's results and the Consumer Advocate's results for the cases without Puako Solar. The Consumer Advocate did complete

analyses to show the impact of energy generated, fuel burned, and GHG emissions with and without Puako Solar and those results are discussed in detail later in the report.

As part of the production simulation analysis, Hawaii Electric Light estimated the amount of energy that would be generated from the Hu Honua facility over the thirty-year study period and provided the generated energy estimate to Hu Honua. Hu Honua used the energy generation estimate provided to it from Hawaii Electric Light to estimate GHG emissions from the Hu Honua facility. Hawaii Electric Light provided to Hu Honua an estimated average annual Hu Honua energy output of 89.5 GWh for the “with Puako” scenario. The average annual Hu Honua generation is approximately 10.22 MW per hour. The level of Hu Honua generation is near its minimum output of 10 MW per hour.

Sawvel also reviewed the Hawaii Electric Light power supply costs from its production simulation model to calculate the increase or decrease in power supply costs when adding the Hu Honua facility to the Hawaii Electric Light generating system. Hawaii Electric Light modeled the fuel (including startup fuel and startup and shutdown costs), and fixed and variable operation and maintenance costs in each of its scenarios over the thirty-year study period.

Sawvel’s analysis indicates that approximately 2% less energy is projected to be generated from the Hu Honua facility over the thirty-year period for the scenarios with Puako Solar compared to Hawaii Electric Light’s results. Hawaii Electric Light’s estimate of Hu Honua energy generation from its production simulation analysis is shown in Table 2 of Exhibit HHB-CA-SIR-16. As stated earlier, Hawaii Electric Light estimated average annual Hu Honua energy output of 89.5 GWh for the “with Puako” scenario. The average annual Hu Honua generation is approximately 10.22 MW per hour. The

Consumer Advocate estimate of energy generated from Hu Honua is shown in Table 3 of Exhibit HHB-CA-SIR-16. The Consumer Advocate estimated average annual Hu Honua energy output of 87.6 GWh or 10.0 MW per hour.

PUC-HELCO-IR-17 requested Hawaii Electric Light prepare analyses without Puako Solar. As mentioned previously, Hawaii Electric Light completed the requested analyses, but did not provide its production simulation results. Hawaii Electric Light did provide revenue requirement, customer bill impact and GHG analyses for the without Puako Solar cases. The Consumer Advocate prepared analyses to illustrate the impacts without Puako Solar. For the scenario without Puako Solar, the Consumer Advocate's results show average annual generation from Hu Honua increases to 98,620 MWh per year and 11.3 MW per hour as shown in Table 3 of Exhibit HHB-CA-SIR-16.

Hawaii Electric Light explains in its response to CA/HELCO-SIR-26.c3, that operating the Hu Honua facility to only displace fossil fueled generating units, "may result in system instability, unreliability and highly un-economical overall system operation."¹² Hawaii Electric Light also explains that "The minimum dispatch of Hu Honua makes it impossible to ensure that no renewable resource energy output will be partially displaced by Hu Honua. The system must balance supply and demand and, as the system increasingly transforms to 100% renewable energy generation, there must always be more renewable energy available than system demand. The future operation of the grid may require that renewable resources operate at less than full available output for balancing and reserves."¹³

¹² CA/HELCO-SIR-26, page 5 of 5, number 3.

¹³ CA/HELCO-SIR-26, pages 4 and 5 of 5, number 1.

Hawaii Electric Light explains in its response to CA/HELCO-SIR-28 that if Hu Honua was operated at its full Committed Capacity of 21.5 MW that it would not be providing operating reserves because its output would not be increased or decreased when needed and that other generators would need to provide operating reserves to follow load and accommodate more wind and solar generation. Hawaii Electric Light explains that if Hu Honua was operated in this manner that it would not decrease the need for other fossil-fueled generators because they would continue to be needed for operating reserves if Hu Honua was not operated as a dispatchable resource that provides operating reserves.¹⁴

Hawaii Electric Light explains in CA/HELCO-SIR-31 that “Hu Honua’s PPA term average generation in the Company’s production simulations is approximately 90 GWh. Over 90% of Hu Honua’s generation offsets fossil fuel energy. For the majority of Hu Honua’s term Keahole CC is the only significant fossil generator on the system, and its average annual generation is about 28 GWh. So, Keahole CC is not the reason why Hu Honua is not dispatched higher. The reason is that other renewable and lower cost generators are serving system load ahead of Hu Honua.”¹⁵

From Hawaii Electric Light production simulation results (including Puako Solar), we estimate that approximately 42% of Hu Honua’s energy generated would offset fossil fueled generation and 58% of Hu Honua’s energy generated would offset renewable energy generation during the thirty-year analysis. Hawaii Electric Light’s statement of over

¹⁴ CA/HELCO-SIR-28, page 2 of 4, number 1.

¹⁵ CA/HELCO-SIR-31, page 4 of 5, top half of page.

90% of Hu Honua generation offsetting fossil fueled energy appears to be true only in the first two (2) years of the thirty-year analysis.

The comparison of fossil fueled energy generated for the cases with and without Hu Honua are provided in Table 9 of Exhibit HHB-CA-SIR-16. The comparison of Hu Honua generation and energy generation offsets are provided in Table 10 of Exhibit HHB-CA-SIR-16. Table 9 shows that the average fossil fueled generation per year without Hu Honua is 93 GWh for 2022 through 2051 and the average fossil fueled generation per year for the case with Hu Honua is 56 GWh. Thus, adding approximately 90 GWh of average annual Hu Honua generation decreases fossil fueled generation from 93 GWh to 56 GWh, a decrease of 37 GWh or 40% on average.

However, evaluating Tables 9 and 10 in the context of annual averages over thirty years may not be the clearest way to view the data regarding fossil fuel generation. For instance, Table 9 shows that the average annual fossil fuel generation without Hu Honua is approximately 289 GWh from 2022 through 2026 when Hill 5, Hill 6 and Puna Steam are still available and operating. The same period of 2022 through 2026 shows fossil fuel generation at an annual average of 236 GWh for the with Hu Honua case. In other words, adding approximately 86 GWh per year of Hu Honua generation decreases the fossil fuel generation by 53 GWh per year in 2022 through 2026.

If a similar comparison is considered for the period 2027 through 2044, after Hill 5, Hill 6 and Puna Steam are removed from service and prior to the conversion of all fossil fuel units to biodiesel, the average annual fossil fuel generation for the case without Hu Honua is 66 GWh. During that period Hu Honua is operating at an average annual generation of 91 GWh. However, the average annual fossil fuel generation for the case

with Hu Honua from 2027 through 2044 is 26 GWh. Thus, Hu Honua operating at 91 GWh per year decreases fossil fuel generation from 66 GWh to 26 GWh per year. This indicates that Hu Honua avoids 40 GWh of fossil fuel generation out of 66 GWh, or approximately 60% of the fossil fuel generation. Said another way, 91 GWh of Hu Honua generation offsets 40 GWh of fossil fuel generation and 51 GWh of something else, which is renewable resources in this case. Only 40 GWh out of 91 GWh, or 44%, of Hu Honua generation is offsetting fossil fuel generation. Table 10 shows that over the thirty-year period, 42% of Hu Honua generation offsets fossil fuel generation and 58% of Hu Honua generation replaces renewable generation.

The amount of energy that could be generated from Hu Honua if operated at 21.5 MW for 50 weeks (not including forced outages) is 181,096 MWh. The analysis in Table 9 and Table 10 show that there is not 181 GWh of fossil fuel generation for Hu Honua to replace. Tables 9 and 10 also show that Hu Honua is offsetting renewable generation when it operates near its minimum output level. If Hu Honua generation was not economically dispatched and forced to run at a higher output, it appears that Hu Honua generation would cause more renewable energy resource generation to decrease or be curtailed.

The production simulation results indicate that Hu Honua will not operate near its maximum output during the duration of the study period. It appears that Hu Honua operates near its minimum output of 10 MW per hour. It appears that Hu Honua will replace some fossil fuel generation and some renewable energy generation. The analyses indicated that 42% of Hu Honua generation replaces fossil fuel generation and 58% of Hu Honua generation replaces renewable energy generation. The power

supply cost analyses prepared by Hawaii Electric Light and the Consumer Advocate indicate that Hu Honua is projected to increase costs and revenue requirements for customers in the range of approximately 12% annually versus cases without Hu Honua.

1. Need for RPS Contribution.

Hawaii Electric Light continues to exceed the interim RPS goal.¹⁶ So the Consumer Advocate continues to assert that any new generation should support a finding that it will reduce the Company's customer bills.

B. WHETHER THE HEALTH AND ENVIRONMENTAL IMPACTS OF THE PROJECT, INCLUDING GHG EMISSIONS ARE REASONABLE.

1. Long-Term Environmental and Human Health Impacts

The Consumer Advocate encourages the Commission to continue to monitor current and projected environmental impacts from the Hu Honua facility, and from Hawaii Electric Light's reliance of electricity produced there. While it is still not entirely clear from the information provided so far by the applicants what the long-term environmental and public health costs of reliance on energy produced at the proposed facility are, nor what the potential for increased air pollution due to the lifecycle GHG emissions of the Project is, the Consumer Advocate is aware of permit proceedings in front of other agencies and has continuing concerns about apparent environmental health risks related to harvesting and transporting feedstock, and from a variety of ash and gaseous emissions from combustion. Within the Commission's broad mandate to look at

¹⁶ See the Hawaiian Electric Companies' 2020 Renewable Portfolio Standard Status Report, indicating that for the year ended December 31, 2020, Hawaii Island achieved an RPS of 43.4%, with an overall State RPS of 34.5%. Letter From: K. Katsura To: Commission Re: Docket No. 2007-0008 - Renewable Portfolio Standards Law Examination, filed on February 12, 2021.

and determine the public interest, the Consumer Advocate encourages it to consider all of the apparent and likely relevant environmental and health impacts.

2. GHG Emissions

(a) Assessment of Updated GHG Emissions Studies¹⁷

The Consumer Advocate recognizes the considerable effort that the Company, through Ramboll, and Hu Honua, through ERM and JBP, have made to-date to estimate and address concerns related to the potential Operational and Lifecycle GHG Emissions that may occur should the Commission approve the Amended and Restated PPA and the Project were to be added to the Hawaii island system. In reviewing the Applicants' GHG emissions analyses, the Consumer Advocate examined the following:

- Whether the documented assumptions were based on available project or system data, or were clearly supported by available peer-reviewed studies;
- Whether the methodological tools in the analyses appear reasonable and appropriately applied; and
- Whether the GHG emissions that would result from approval of the Amended and Restated PPA and subsequent addition of the project to Hawaii Electric Light's system are greater than the GHG emissions that would result from the operations of Hawaii Electric Light's system without the addition of the Project.

¹⁷ See Supplemental Response to HHB-CA-SIR-19, Exhibit HHB-CA-SIR-19, filed on December 21, 2021.

A summary of the GHG emissions analyses are below.

(1) Summary of GHG Emissions Impact Analyses for the Hu Honua Bioenergy Project and the Hawaii Electric Light System.

As part of the proceedings in the current remand of the instant docket, both Hawaii Electric Light and Hu Honua updated their previously filed GHG emission analyses and re-filed them as part of their Pre-hearing Testimonies and Exhibits on September 16, 2021.¹⁸ Hawaii Electric Light retained Ramboll to conduct an updated analysis of the avoided emissions from its fossil-fueled generators and calculate the Net Operational Emissions and the Net Lifecycle Emissions for the Hawaii Island system without (“Base Case”) and with (“Alternate Case”) the addition of the Project and based on current long-term planning assumptions filed as HELCO-501 (“Updated Ramboll GHG Analysis”). Hu Honua retained ERM to estimate the Net Operational GHG Emissions and Net Lifecycle GHG Emissions from the operation of the Project (“Updated ERM GHG Analysis”) over the thirty-year term of the Amended and Restated PPA. Hu Honua also retained JBP to conduct an updated Net Lifecycle Analysis of GHG Emissions (“JBP GHG Analysis”) associated with the construction of the Project, 99 percent of which is completed, to support the development of the assumptions and analyses in the Updated ERM GHG Analysis and was filed as Hu Honua-601.

On November 12, 2021, the Commission issued information requests to Hawaii Electric Light requesting the Company to run additional production simulations for the

¹⁸ See Letter From: K. Katsura To: Commission Re: Docket No. 2017-0122 - Hawai'i Electric Light Company, Inc.; Amended and Restated PPA with Hu Honua Bioenergy, LLC, filed on July 12, 2021; and Response to LOL-IR-2021-3.b.

Base and Alternate Cases due to the withdrawal of the Power Purchase Agreement for Renewable Dispatchable Generation with Puako Solar in Docket No. 2020-0189 that was included in HELCO-301, and update and provide several exhibits, including HELCO-501. In response to PUC-HELCO-IR-17.b, Hawaii Electric Light requested Ramboll complete an additional GHG emissions analysis based on the results of the updated production simulation and filed updated GHG emissions analyses from both Ramboll on the avoided fuel and Hawaii island system as Attachment A (“Additional Ramboll GHG Emissions Analysis”) and ERM on the Project as Attachment B (Additional ERM GHG Emissions Analysis”).¹⁹

Based on the Company’s updated production simulation, Hawaii Electric Light, utilizing GHG emission data for the Project from Table 2 of the Additional ERM GHG Emissions Analysis, estimate that the Project will result in a **Net Operations GHG Emissions Reduction of 1,227,250 MT CO₂e** and a **Net Lifecycle GHG Emissions Reduction of 1,464,72 MT CO₂e** over the thirty-year term of the Amended and Restated PPA.²⁰ The below tables summarizes the methodologies and estimated GHG emissions and reductions calculated and presented in the three analyses should the Project be added to the Hawaii island system:

¹⁹ The Consumer Advocate observes that the Commission also issued PUC-Hu Honua-IR-44 to Hu Honua requesting Seller to update the estimated project lifecycle emissions without counting sequestration from existing tree growth (i.e., tresses planted prior to 2017 or 2022) between 2017-2051 in the simulated (Table 2 – CO₂ Calculator Simulation) and full production (Table 3 - CO₂ Calculator Full Dispatch) scenarios in the workbooks supporting the Updated ERM GHG Emissions Analysis filed as Hu Honua-402. However, the Additional ERM GHG Emissions Analysis only includes changes to the metric tons (“MT”) of feedstock in column “Biomass Combusted”.

²⁰ Additional Ramboll GHG Analysis, Attachment A, Table 3.

Table 1. Summary of Methodologies Utilized in Ramboll GHG Analysis, ERM GHG Analysis, and JBP GHG Analysis

| Key Assumptions | Additional Ramboll GHG Analysis (Response to PUC-HELCO-IR-17.b) | Additional ERM GHG Analysis (Response to PUC-HELCO-IR-17.b) | JBP GHG Analysis (Hu Honua-601, filed on September 19, 2021) |
|---|---|---|---|
| Updated Simulation of Resource Plan for Hawaii Island System | Updated resource plan simulations (Excluding Puako Solar); Estimated Avoided Fuel Consumption based on PLEXOS model | Not Provided | Not Provided |
| Estimate Operational GHG Emissions Impacts | Utilized Data Provided from Hu Honua for Project Stack Emissions for HELCO system and estimated Avoided upstream GHG emissions using the GREET 2020 Excel Model (Fuel-Cycle Model) for fuel year 2022 | Utilized Data from Project Egnyte Database; peer-reviewed literature; CDM Methodological Tool Vers. 4.0; 2020 Updated Forest Solutions Report filed as Exhibit 1 in response to LOL-IR-2021-3.a | Not Provided |
| | | Estimated Operational GHG Emissions associated with Hu Honua in two scenarios: utilizing data from HELCO's production simulation and dispatched at the 21.5 MW committed capacity in the Amended and Restated PPA | |

| | | | |
|---|--|---|--|
| Estimate Lifecycle GHG Emissions Impact from operation of the Hu Honua Plant | REET 2020 Excel Model (Fuel-Cycle Model) for fuel year 2022) | Utilized Data from Project Egnyte Database; CDM Methodological Tool Vers. 4.0; estimated emissions for decommissioning of Project to be 10 percent of construction emissions using peer reviewed data | Utilized Data from Project Egnyte Database; Utilized emission factors associated with steel, concrete, copper, and asphalt from publicly available databases; utilized emission factors from the EPA Greenhouse Gas Protocol Technical Guidance for Calculated Scope 3 Emissions and the 2017 Global Maritime Trade Lane Emissions Factors Clean Cargo Working Group for transportation of raw materials |
|---|--|---|--|

Table 2. Avoided GHG Emissions from Fossil Fuels and Biodiesel on Hawaii Island over Lifetime of the Amended and Restated PPA.

| Project Stage | Avoided GHG Intensity | Avoided GHG Emissions |
|------------------------------------|----------------------------|-----------------------|
| | kg CO ₂ e / MWh | MT CO ₂ e |
| Estimated Avoided Upstream | 117 | 347,479 |
| Estimated Avoided Transportation | 15 | 44,084 |
| Estimated Avoided Operations | 351 | 1,042,680 |
| Estimated Avoided Lifecycle | 483 | 1,434,243 |

Source: Additional Ramboll GHG Analysis, Attachment A, Table 2.

According to Sawvel, as shown in Tables 7 and 8 of Exhibit HHB-CA-SIR-16, the Hawaii Electric Light stack emissions from the Consumer Advocate's independent analysis decreased as compared to the Hawaii Electric Light analysis by 1.1% with Puako Solar and increased 1.7% compared to Hawaii Electric Light's analysis without Puako Solar. This is based on a decrease in the estimated fuel avoided from approximately 9,071,021 MMBtu in Hawaii Electric Light's analysis and to 8,968,388 MMBtu in the Consumer Advocate's analysis, or a difference of 1.1% for the case with

Puako Solar. Without Puako Solar, estimated fuel avoided is approximately 14,215,978 MMBtu for Hawaii Electric Light's results and 14,454,988 MMBtu for the Consumer Advocate's results, or a difference of 1.7%. Hu Honua is estimated to decrease fossil fuel use as shown in Table 7 of Exhibit HHB-CA-SIR-16. Avoided greenhouse gases are estimated at approximately 673,097 MT CO_{2e} for HELCO's results and 665,481 MT CO_{2e} for the Consumer Advocate's results with Puako Solar. Without Puako Solar, avoided greenhouse gases are estimated at 1,054,868 MT CO_{2e} for Hawaii Electric Light and 1,072,603 MT CO_{2e} for the Consumer Advocate without Puako Solar as shown in Table 7. Based on this analysis, the Consumer Advocate believes that the Company's production simulation reasonably reflects the potential impacts to Avoided GHG Emissions from fossil fuels and biodiesel on Hawaii Island over lifetime of the Amended and Restated PPA should the Commission approve the Project.

Table 3. Project GHG Emissions from 2017-2051 based on Updated Production Simulation and 21.5 MW Full Capacity Dispatch.

| Project Stage | Simulated | | Full | |
|--|-----------------------------|---------------------|-----------------------------|---------------------|
| | GHG Emissions | | GHG Emission | |
| | Short Tons CO _{2e} | MT CO _{2e} | Short Tons CO _{2e} | MT CO _{2e} |
| Estimated Operations GHG Emissions Total | -203,454 | -184,570 | -212,526 | -192,800 |
| Estimated Lifecycle GHG Emissions Total | -33,619.2 | -30,498.8 | -33,884.6 | -30,739.59 |

Source: Additional ERM GHG Analysis, Calculation Tabs "Emission Sim" and "Emission Full".

The Consumer Advocate notes that the Estimated Lifecycle GHG Emissions Total figure in both the simulated and full capacity dispatch scenarios includes calculated amounts for the construction of the Project facility originally calculated in the Updated JBP GHG Analysis. These figures are documented below.

Table 4. Estimated Upstream GHG Emissions related to the Construction of the Project.

| Project Stage | GHG Emissions |
|--|----------------------|
| | MT CO ₂ e |
| Raw Materials | 7,406 |
| Transportation to Project Site | 403 |
| On-site Construction | 3,254 |
| Total Estimated GHG Emissions related to Construction | 11,063 |

Source: Updated JBP GHG Analysis, Table 7.

The Additional ERM GHG Analysis also included the estimated downstream GHG Emissions related to the decommissioning of the Project in the Estimated Lifecycle GHG Emissions Total figure. The tables in the calculation tabs “Emission Sim” and “Emission Full” of this analysis provides a breakdown of this figure that estimates GHG emissions related to decommissioning to be 1,484.81 MT CO₂e.²¹

(2) Discussion of Outstanding Areas of Concern.

The Consumer Advocate observes that the Updated and Additional ERM GHG Analyses provide a general, over-estimated baseline of potential GHG emissions that appear to be selectively based on available project-specific data, namely the 2020 Updated Forest Solutions Report, and that the Carbon Calculator’s estimated figures in Table 2 (simulated scenario) and Table 3 (full 21.5 MW committed capacity scenario) in both the Updated and Additional ERM GHG Analyses will be replaced with “actual data (e.g., distances, weight of biomass, tree surveys)”²² as part of Hu Honua’s proposed commitment to be 30,000 MT carbon negative over the thirty-year term of the Amended

²¹ ERM calculated the total downstream GHG emissions to be 16,367 short tons CO₂e. The Consumer Advocate utilized the conversion factor that EMR provided at the bottom of the workbook to arrive at the total GHG emissions in MT CO₂e. 16,367 short tons CO₂e x 0.90718474 metric tons/short tons = 1,484.81 MT CO₂e.

²² Response to CA/Hu Honua-SIR-31.a.1.

and Restated PPA.²³ Despite Hu Honua’s commitment, the Consumer Advocate reiterates that the Commission has a statutory obligation under HRS § 269-6(b) to consider the hidden and long-term costs of energy, including costs related to GHG emissions, when “making determinations of the reasonableness of the costs of utility system capital improvements and operations”. Therefore, the Consumer Advocate believes it reasonable that any supporting materials that quantitatively or qualitatively consider GHG emissions impacts should present reasonable estimates of expected operational conditions, are supported through evidence provided by the Company and/or Seller, and do not rely on conservative over-estimates that may inflate the potential benefits or adverse impacts of a given project.²⁴ As such, the Consumer Advocate at this time, based on the information provided to-date and with the acknowledgement that responses to the Commission’s IRs on the GHG emissions analyses are still outstanding,²⁵ believes that there are still concerns that need to be addressed regarding GHG emissions as noted primarily in the Consumer Advocate’s responses to HHB-CA-IR-61, HHB-CA-SIR-18.a, and HHB-CA-SIR-19. These concerns encompass three general areas: 1) upstream GHG emissions related to the cultivation, harvesting, and transportation for the biomass feedstock; 2) GHG emissions related to any potential land

²³ See, e.g., Hu Honua-201.

²⁴ See, e.g., Response to CA/Hu Honua-SIR-42.b., which states:

The emissions reported in this analysis are intended to be an overly conservative estimate that Hu Honua will be responsible for mitigating to achieve its 30,000 tons carbon negative commitment.

²⁵ The Commission issued several IRs to Hu Honua on assumptions utilized in Updated ERM GHG Analysis and actions taken to-date on the harvest of current biomass stocks on December 15 and 16, 2021 and required responses by December 29, 2021.

use change and use of invasive species; and 3) the carbon sequestration plan discussed in Hu Honua-201 and modeled in Tables 2 and 3 in the Carbon Calculator.

As it relates to concern 1) upstream GHG emissions related to cultivation, harvesting and transportation for the biomass feedstock and 2) GHG emissions related to any potential land use change and invasive species use, the Consumer Advocate notes that data from the 2020 Updated Forest Solutions Report, which indicates the biomass amount present at the sites is of sufficient supply for Hu Honua to meet its obligations under the Amended and Restated PPA for seven (7) to nine (9) years,²⁶ after which it is not clear where CN Renewable Resources will source the needed biomass. The Consumer Advocate requested information regarding evidence of ongoing negotiations with landowners to secure additional local biomass, including a list of actions taken to-date, the total potential biomass available based on inquiries, if these lands already contain cultivated biomass or if these lands will be converted to biomass plantations from their current use, and the extent to which landowners are amenable to replanting biomass once existing stocks or cultivated stands are harvested. In response, Hu Honua provided the following actions taken to-date, but stated that no biomass inventory of the various properties or assessments on land conversation has been conducted at this time:

- Searched TMK listings and researched various parcels. From this, Hu Honua contacted several landowners and obtained letters of interest.
- Conducted numerous discussions with a private landowner regarding approximately 6,000 to 7,000 available acres of commercial eucalyptus along the Hamakua Coast.
- Approached the landowner of the Paauhau location to inquire regarding extending the lease. The landowner indicated that it was

²⁶ See, e.g., response to CA/Hu Honua-SIR-31.a.1.

not inclined to extend the lease at the time, given the uncertainty of the approval of the Amended and Restated PPA.

- Hu Honua is currently in discussions with a State agency regarding the availability of State lands.
- Met with private and state parties to discuss 1,300 acres of land available in the Kapulena Agricultural Lots.
- Obtained names of private parties/owners who are interested in having their lots cleared of eucalyptus trees and/or entering into long term leases, which are under discussion.²⁷

In response to PUC-HU-Honua-IR-53, Hu Honua provided restricted copies of correspondence with landowners as Attachment A in support of the above stated actions.

The Consumer Advocate appreciates Hu Honua's actions to-date to secure additional biomass sourced from Hawaii Island. However, and in light of the fact that Hu Honua has conducted a biomass inventory of the various properties with commercial eucalyptus to estimate the total viable feedstock or assessments on land conversation for potential plantations, the Consumer Advocate believes that the Updated ERM GHG Analysis may not be reflective of the GHG emissions that could occur from landuse change, nor is it clear at this time the total additional tonnage of biomass available for use in Hu Honua's boilers from the 6,000 to 7,000 available acres along the Hamakua Coast.

The Consumer Advocate recognizes that Hu Honua is only required under the Amended and Restated PPA to have at least thirty-seven (37) Days of Fuel.²⁸ This fact notwithstanding, the Updated and Additional ERM Analyses both assume that the biomass feedstock will be cultivated and harvested on Hawaii Island. However, based on the above and due to the fact that the Fuel Sales and Purchase Agreement with CN Renewable Resources does not contain any contractual reference to the Pahala, Parker,

²⁷ Response to CA/Hu Honua-IR-XXX.a (un-numbered IR between CA/Hu Honua-IR-133 and CA/Hu Honua-IR-134).

²⁸ Application, Exhibit A, at 54, filed on May 9, 2017.

and Hamakua plantations, or any other biomass plantation, that would indicate the source or type of the feedstock, whether on Hawaii Island, in the State of Hawaii, or on the continental US. Therefore, the Consumer Advocate maintains that without a condition or similar term in the Fuel Sales and Purchase Agreement with fuel supplier CN Renewable Resources that stipulates the biomass feedstock will be sourced from plantations on Hawaii Island or within the State of Hawaii, the Consumer Advocate is unable to determine if these sources of biomass feedstock do not need to be included in Hu Honua's GHG emissions model once the seven (7) years of feedstock already secured by Hu Honua is exhausted. Without this condition or similar term, Consumer Advocate is unable to determine if the potential upstream GHG emissions related to potential transportation of the imported feedstock and its cultivation are reasonably accounted for in the Updated and Additional ERM GHG Analyses.

In addition to the above discussion, the Consumer Advocate also sought information related to the silviculture plans or drafts developed for use at the currently contracted biomass plantations to verify GHG emissions related to fertilization of biomass and harvesting. In response to CA/Hu Honua-IR-134, Hu Honua states its "fuel supplier has not yet developed a silviculture plan because it will need to be property specific and is contingent upon the approval of the Amended and Restated PPA. However, the silviculture plan does not affect the actual measurements that will be taken." As stated in response to HHB-CA-SIR-19.b, the Consumer Advocate is unclear on what Hu Honua means by stating that the silviculture plan does not affect the actual measurements that will be taken. The Consumer Advocate has requested working draft silviculture plans that

identify the types of fertilizers, amounts, and application for the plantations identified in the Updated ERM GHG Analysis.

In response to CA/Hu Honua-SIR-29.a, Hu Honua states that CN Renewable Resources has a general framework for a silviculture plan, but that this plan will be finalized upon approval of the Amended and Restated PPA. Additionally, Hu Honua provided the following response regarding the intended fertilizers, their GHG emissions impacts, and how these impacts were incorporated into the Updated ERM GHG Analysis in response to CA/Hu Honua-SIR-29.a.4(b)-(c):

(b) A list of fertilizers was not used to do the GHG fertilizer emissions in the Project GHG Analysis for the Hu Honua Bioenergy Project, filed September 16, 2021, as Exhibits HU HONUA-401 and HU HONUA-402 ("Project GHG Analysis"). Calculations for the GHG emissions from the fertilizer were developed by using the CDM methodological tool, list of fertilizers was not used to do the GHG fertilizer emissions in the Project GHG Analysis for the Hu Honua Bioenergy Project, filed September 16, 2021, as Exhibits HU HONUA-401 and HU HONUA-402 ("Project GHG Analysis"). Calculations for the GHG emissions from the fertilizer were developed by using the CDM methodological tool, Project and leakage emissions from biomass (version 4.0, September 2017, available at <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-16-v4.pdf>). Fertilizer application rate was multiplied by emission factors for fertilizer application to give the total emissions. Fertilizer use calculated for GHG emissions for purposes of the Project GHG Analysis is consistent with the projected fertilizer use.

(c) More specific data on fertilizer emissions would likely decrease the calculated emissions. This is because the data used in the Project GHG Analysis relied upon conservative values and older less efficient manufacturing methods and higher carbon intensity energy, and does not account for future efficiencies in fertilizer manufacturing. The overall emissions from fertilizing would likely change very little with a list of specific fertilizers. This is because most specific fertilizers do not have lifecycle carbon footprint assessments. The fertilizer emissions factors used in the analysis are used globally and provide a good proxy for the emissions from specific fertilizer. In addition, the fertilizer emissions account for ~1%

of emissions calculated from the plant so even with some slight modifications, it is still a very small part of the plant lifecycle GHG emissions, and these modifications would decrease the calculated emissions from fertilizer.

Moreover, and as it pertains to Hu Honua's statement that the plans will need to be "property specific," it is the Consumer Advocate's understanding that the three plantations identified in the Updated ERM GHG Analysis have been under contract since 2017 and prior to the Supreme Court's remand of the instant docket in SCOT-17-0000630 filed on May 10, 2019. Based on Hu Honua's Pre-hearing Testimony,²⁹ the Project is now 99 percent complete, a change from 95 percent complete when the initial GHG emissions analyses for the Project were completed in 2019.³⁰ Therefore, the Consumer Advocate is unclear on the steps, possible remaining permissions, or conditions Hu Honua believes are necessary to provide its Forester with the means to ensure the plans for the plantations currently under contract are "property specific."

Regarding the use of other invasive species, such as albizia as part of the carbon reduction plan, the Consumer Advocate notes that Hu Honua would need to develop a test protocol to introduce "any other woody biomass materials to the boiler other than Eucalyptus"³¹ and will be required to comply with emissions restrictions established in the Project's Covered Source Permit limiting, specifically albizia, to "10 percent of the fed fuel source."³² The Consumer Advocate observes that the Covered Source Permit application (No. 0724-01-C) on page 2 states, "the feedstock of wood will consist of primarily

²⁹ See, e.g., Hu Honua T-1, at 6, Hu Honua T 2, at 3, and Hu Honua T-6, at 5

³⁰ Hu Honua T-6, at 5.

³¹ Response to CA/Hu Honua-IR-136.b.

³² Response to CA/Hu Honua-IR-136.c.

eucalyptus trees (typically ninety (90) percent of the feedstock) but may contain as much as fifty (50) percent of other clean wood sources at times, including invasive species”; that is, there is a range in the possible acceptable volume of other invasive species that Hu Honua could accept for use in the Project boiler. Based on this, the Consumer Advocate believes that there may be additional sources of operational GHG emissions that are not currently quantified or considered in the Updated ERM GHG Analysis. Also, based on Hu Honua’s response to CA/Hu Honua-IR-136.a, which indicates that the State and/or County needs regarding invasive species utilization are unknown at this time, the Consumer Advocate reserves any outstanding concerns on GHG emissions from invasive species use in the Project boiler until the State and/or County needs are assessed and available for consideration.

As it relates to concern 3) the carbon sequestration plan, the Consumer Advocate has remaining concerns as evidenced by the above discussion of concerns 1 and 2. The Consumer Advocate acknowledges Hu Honua’s commitment to be 30,000 MT carbon negative, and observes that Hu Honua-201 identifies a list of steps, in priority order, to achieve this goal which include: phased harvesting plans for currently contracted plantations, replanting efforts through the National Forest Foundation, and replanting and/or coppice regrowth during lease-terms and at the end of leases as permitted by the landowners. The above observations notwithstanding, the Consumer Advocate notes that there are still outstanding IRs regarding the above steps for the carbon sequestration plan, such as PUC-Hu Honua-IR-68 that seeks additional information on sequestered GHG emissions related to trees planted through a pledge agreement between Jennifer M. Johnson and the National Forest Foundation (“NNF”), which informs the values listed

in the “NNF” column in the Carbon Calculator.³³ While Hu Honua provided documentation of the formula and emission factors used in the Carbon Calculator based on the NNF website,³⁴ it is not clear how NNF developed a general 0.005 MT per year carbon sequestration rate, why a linear application of this rate is appropriate across multiple tree species and climates rate, nor how Hu Honua determined the thirty-year time span used in the calculations is reasonable. The Commission issued PUC-Hu Honua-IR-68 to gather this additional information.

Finally, with regard to the reasonableness of the CDM Methodological Tool used to quantify and model estimated lifecycle and operational GHG emissions for the Project, the Consumer Advocate observes, based on the information provided to date, that modifications and/or adjustments to this tool to account for project- or site-specific data/factors is possible, as evidenced by ERM’s utilization of data specific to *Eucalyptus grandis* (the intended biomass feedstock) for the aboveground and belowground growth rates based on the established in the 2012 masters thesis by Mataia Reeves provided as Exhibit 1 to Hu Honua’s response to PUC-Hu Honua-IR-15.a.2. The Consumer Advocate is also sought clarification on other adjustments that Hu Honua made or considered regarding project- and/or site-specific data related to cultivation and harvesting based on any draft silviculture plans for each plantation with in CA/Hu Honua-SIR-29.a; however, and based on Hu Honua’s response previously discussed above, it appears that this project-specific data was known but ultimately not incorporated into the Updated ERM GHG Analysis for the Project.

³³ Response to CA/Hu Honua-IR-148.a.

³⁴ See *Ibid.* and *Planting for our climate*, National Forest Foundation website <https://www.nationalforests.org/tree-planting-programs/climate>.

(b) Treatment of Biogenic Emissions.

According to Hawaii Administrative Rules (“HAR”) §11-60.1-1, “biogenic CO₂ emissions” is defined as:

CO₂ emissions from a stationary source directly resulting from the combustion or decomposition of biologically-based materials other than fossil fuels and mineral sources of carbon.

By way of illustration, HAR §11-60.1-1 also provides several examples of biogenic CO₂ emissions, including “CO₂ derived from combustion of biological material, including all types of wood and wood waste, forest residue, and agricultural material.” Based on this, the Consumer Advocate recognizes that under Hawaii Administrative Rules, the Hawaii Department of Health GHG emission reduction plans required of affected stationary sources remove biogenic CO₂ emissions from the baseline emissions estimate³⁵, and this is in line with the EPA’s 2018 policy statement on biogenic sources of GHG emissions as generally considered carbon neutral.³⁶

The above notwithstanding, the Commission should carefully analyze the carbon sequestration plan and evaluate how biogenic GHG emissions are considered. While biogenic GHG emissions may, by existing federal and state standards, be excluded from certain analyses, they are still emissions. If they are counted against the proposed

³⁵ HAR §11-60.1-204. To this end, HAR §11-60.1-204(d)(6)(B) states:

...biogenic CO₂ emissions will not be included when determining compliance with the facility-wide emissions cap until further guidance can be provided by EPA, or the director, through rulemaking.

³⁶ Environmental Protection Agency. *EPA’s Treatment of Biogenic Carbon Dioxide (CO₂) Emissions from Stationary Sources that Use Forest Biomass for Energy Production* (“EPA 2018 Forest Biomass Report”), at 1. April 23, 2018. Available at: https://www.epa.gov/sites/production/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf.

Project, then Hawaii Electric Light's total emissions including the proposed Project should rise. The Updated and Additional ERM GHG Analyses indicate that the Operational "Stack" Emissions from biomass combustion are estimated to be for the Project dispatch based on Hawaii Electric Light's production simulation to be 6,557,832 short tons CO₂e³⁷ and at the 21.5 MW committed capacity to be 9,847,799 short tons CO₂e³⁸ over the 30-year term of the A&R PPA. These emissions are offset through the carbon sequestration plans outlined in Hu Honua-201 and quantified in the Carbon Calculator. Currently, the Commission has issued several IRs to Hu Honua regarding the methodological reasonableness behind the calculations and values in the "Net Above Ground Biomass Growth on Island" and "NNF Trees" columns of the Carbon Calculator.³⁹

Based on ongoing discovery, the Consumer Advocate believes that a determination that Hu Honua's carbon sequestration plan will result in a net reduction of GHG emissions, and this will be reflected and reported in the Carbon Calculator, is premature at this time. Therefore, the Consumer Advocate is not clear that Hu Honua has demonstrated that the Project will not increase GHG emissions should Hu Honua be added to Hawaii Electric Light's system.

³⁷ Additional ERM GHG Emission Analysis, "Emission Sim" Tab, Column Q, Cell 43.

³⁸ Additional ERM GHG Emission Analysis, "Emission Full" Tab, Column Q, Cell 42.

³⁹ See PUC-Hu Honua-IR-70 and PUC-Hu Honua-IR-68.

C. WHETHER THE AMENDED AND RESTATED PPA IS PRUDENT AND IN THE PUBLIC INTEREST.

1. Amended and Restated PPA Terms.

The Consumer Advocate highlights here just a few terms and conditions in the Amended and Restated PPA that it believes may adversely affect the interests of Hawaii Electric Light's customers.

(a) Thirty-Year Term.

The Amended and Restated PPA's thirty-year term is ostensibly a mechanism to spread out the costs of the Project over a longer time frame and thus reduce the price sought by Hu Honua. However, as noted in previous filings, the price is still high, and so a thirty-year term may only serve to lock in that high price for an unreasonably long time.

(b) Minimum Operating Level and Minimum Economic Dispatch.

The Consumer Advocate continues to seek further information and justification from the applicants regarding the contractual minimum operating level and minimum economic dispatch, especially as that may relate to the energy from which other generation facilities Hu Honua may displace (see detailed discussion above).

(c) Pricing.

The Consumer Advocate assess the contractual pricing terms primarily based on the results of its assessment of forecasted production cost results. Power supply costs included in the Hawaii Electric Light production simulation model were summed by the

Consumer Advocate's consultant Sawvel in its assessment to compare the cost of supplying the Hawaii Electric Light system with Hu Honua and without it. The power supply costs in the Hawaii Electric Light production simulation model include fuel, purchased energy, startup and shutdown costs, startup fuel, and fixed and variable operation and maintenance costs for generating units. Renewable resources such as solar, wind and hydroelectric generators were modeled at zero cost. This comparison was made with and without Puako Solar.

Table 4 of Exhibit HHB-CA-SIR-16 shows the change in power supply costs with Hu Honua from Hawaii Electric Light's production simulation case results. The comparison of power supply costs from Hawaii Electric Light's production simulation cases show that in 2022 through 2051, with Puako Solar, that adding Hu Honua increased power supply costs by approximately \$15,698,000 per year when including its energy and fixed and variable operation and maintenance costs. With Hu Honua capacity charges included, power supply costs increased by approximately \$29,181,000 per year. The Consumer Advocate's estimate of power supply cost increases for the same case with Hu Honua is approximately \$29,436,000 per year as shown in Table 5 of Exhibit HHB-CA-SIR-16. The similarities between Hawaii Electric Light's results and the Consumer Advocate's results in Tables 2 through 5 indicated that the Consumer Advocate results were nearly the same.

PUC-HELCO-IR-17 requested Hawaii Electric Light prepare analyses without Puako Solar. As mentioned previously, Hawaii Electric Light completed the requested analyses, but did not provide its production simulation results. Hawaii Electric Light did provide revenue requirement, customer bill impact and GHG analyses for the without

Puako Solar cases. The Consumer Advocate prepared analyses to illustrate the impacts without Puako Solar. For the scenario without Puako Solar, the Consumer Advocate's results show average annual generation from Hu Honua increases to 98,620 MWh per year and 11.3 MW per hour as shown in Table 3 of Exhibit HHB-CA-SIR-16. Without Puako Solar, the Consumer Advocate's estimate of power supply cost increase with Hu Honua is approximately \$24,168,000 per year as shown in Table 6 of Exhibit HHB-CA-SIR-16.

Hawaii Electric Light's revenue requirement analyses, summarized in Table 11 of Exhibit HHB-CA-SIR-16, indicate that the base case (without Hu Honua) revenue requirements are \$2,696,493,706. When Hawaii Electric Light removes Puako Solar, the revenue requirements decreased to \$2,329,342,970 for the base case (13.6% less). For Hu Honua's requested analysis of the removal of all unapproved projects, the base case revenue requirement is \$2,975,948,244, or an increase of 10.4% from the original base case with Puako Solar.

The Alternate Case (with Hu Honua) revenue requirements for the cases with Puako Solar, without Puako Solar, and with all unapproved projects removed were \$3,041,279,488, \$2,615,089,295, and \$3,064,993,334, respectively. These revenue requirements indicate that the cases without Puako Solar are less costly than the cases with Puako Solar. The Alternate Case without Puako Solar is 3% less than the Base Case with Puako Solar. The Remove all Unapproved project Alternate Case is 13.7% greater than the Base Case with Puako Solar.

Sawvel's results indicate that Hu Honua increases dispatch costs (including its capacity payment and operation and maintenance costs) by approximately \$29,436,000

per year over the thirty-year study period as shown in Table 5 of Exhibit HHB-CA-SIR-16. This is similar to Hawaii Electric Light's production simulation results that indicated increased power supply costs of approximately \$29,181,000 per year as shown in Table 4 of Exhibit HHB-CA-SIR-16.

2. Community Concerns

Especially with recent examples of renewable energy projects around the state encountering persistent community opposition, the Consumer Advocate is very concerned about community sentiment towards the Hu Honua Project, which includes concerns about environmental and health impacts, and whether Hu Honua is doing enough to seek out and address community concerns. When persistent community opposition evolves into litigation (such as LOL's appeal in this very docket), it can delay net benefits (if any) of a project by delaying the start of commercial operations. Besides the direct costs of litigation, the delays can also raise construction costs by causing change orders. Finally, protracted fights with community opponents can contribute to long-term community resistance to this and future renewable energy projects.

D. Whether the Total Costs of the Amended and Restated PPA are Reasonable

The Consumer Advocate still has concerns about whether the total costs of the Amended and Restated PPA are reasonable and in the public interest and is still seeking further explanation and justification from the applicants about the value to ratepayers of the facility on Hawaii Electric Light's grid in order to match the forecasted total costs.

E. WHETHER THERE IS SUFFICIENT EVIDENCE AND ANALYSIS TO SUPPORT APPROVAL OF PREFERENTIAL RATES UNDER HRS § 269-27.3.

Without an updated project schedule, the Hu Honua Project may not fully comply with the Commission's past guidance on requirements for a bona fide request for preferential rates. Also, all feedstock should be sourced from in-state agriculture for the renewable energy produced in conjunction with agriculture to qualify for preferential rates. And in any case, the Commission should determine that the preferential rates requested are reasonable and in the public interest.

1. Bona Fide Request.

On May 5, 2017, Hu Honua provided Hawaii Electric Light with its written request for preferential rates for the purchase of renewable energy produced in conjunction with agricultural activities pursuant to HRS § 269-27.3 ("Request for Preferential Rates").^{40,41} On May 9, 2017, Hawaii Electric Light submitted Hu Honua's request for preferential rates as part of its Letter Request, stating that:

The Company believes Hu Honua's request for preferential rates meets the minimum requirements set forth in HRS § 269-27.3, and

⁴⁰ Letter Request, at 5.

⁴¹ HRS § 269-27.3 Preferential renewable energy rates; agricultural activities

- (a) It is the policy of the State to promote the long-term viability of agriculture by establishing mechanisms that provide for preferential rates for the purchase of renewable energy produced in conjunction with agricultural activities. The public utilities commission shall have the authority to establish preferential rates for the purchase of renewable energy produced in conjunction with agricultural activities.
- (b) Upon receipt of a bona fide request for preferential rates for the purchase of renewable energy produced in conjunction with agricultural activities, and proof that the renewable energy is produced in conjunction with agricultural activities, a public utility shall forward the request for preferential rates to the public utilities commission for approval.

therefore, the Company is forwarding Hu Honua's request to the Commission for review and approval concurrently with this request for approval of the Amended and Restated PPA.

A copy of Hu Honua's request for preferential rates is attached as Exhibit B to the Letter Request.

The Consumer Advocate has reviewed Hu Honua's request for preferential rates and finds that there is currently insufficient information to support Hu Honua's request. The Consumer Advocate's assessment is consistent with the concerns raised above regarding whether the Amended and Restated PPA properly reflect Hu Honua's cost of biomass fuel supply, the range of estimates regarding the cost premium consumers may be asked to pay, and issues regarding the identification and estimation of the purported economic benefits associated with the project.

In Decision and Order No. 33945 filed on September 26, 2016, in Docket No. 2015-0324 ("Decision and Order No. 33945"), the Commission provided guidance and clarification regarding interpretation and application of HRS 269-27.3:⁴²

1. A "bona fide request" means a request made in good faith and without deceit or fraud.
2. The determination of "preferential rates" should be decided by the commission, and a public utility does not possess the authority to deny a request to forward a proposal under HRS § 269-27.3 solely on the basis that the utility believes the rates contained in a proposal are excessive or does not otherwise constitute a "preferential rate."
3. "Renewable energy" refers to electrical energy produced or generated from renewable sources, and renewable fuels, such as biogas, biomass, and biofuel, should be considered as sources of "renewable energy."
4. "Agricultural activities" should follow the definition set forth in HRS § 269-1, and is not limited to the operations of "existing, local, bona fide farmers."

⁴² Decision and Order No. 33945, at 48-50.

5. The requirement that the renewable energy be produced in conjunction with agricultural activities is satisfied by any amount of agricultural activity.
6. The phrase "renewable energy produced in conjunction with agricultural activities" should be interpreted to include projects where the production or generation of renewable energy involves "agricultural activities" (as the term is defined in HRS § 269-1), regardless of whether or not the production or generation of renewable energy is for the sole purpose of the agricultural activities.
7. For the purpose of HRS § 269-27.3, a "bona fide request" should include an official request which specifically cites to HRS § 269-27.3.
8. Additionally, a "bona fide request" should also satisfy the basic elements of HRS § 269-27.3, i.e., contain: (A) a request of preferential rates (B) for the purchase of renewable energy (C) produced in conjunction with (D) agricultural activities.
9. The determination of whether a request is "bona fide" shall be decided by the commission, and a public utility does not possess the authority to deny a request to forward a proposal under HRS § 269-27.3 solely on the basis that the utility believes the request to be in bad faith or is otherwise not considered "bona fide."

Furthermore, the Commission provided the guidance for any bona fide requested made under HRS § 269-27.3. The Commission stated that:

Generally, bona fide requests made under HRS 269-27.3 should, at a minimum, include a description of the following:

1. The project, demonstrating that the project can be reasonably implemented;
2. The project's technological feasibility;
3. Where the project will be sited;
4. The anticipated benefits and risks of the project (e.g., shaving curtailment during peak hours, contributions to Renewable Portfolio Standards, interconnection issues, fluctuations in costs/expenses, etc.);
5. The cost structure of the project;
6. Sources, types, and amounts of funding; and
7. An estimated project schedule.

In providing this guidance, the commission recognizes that each situation will be unique and dependent on particular facts and circumstances.⁴³

⁴³ Decision and Order No. 33945, Appendix A.

The Consumer Advocate recognizes that Hu Honua has met several of the elements of a “bona fide request” identified by the Commission:

- Hu Honua provided a written request specifically citing HRS § 269-27.3.⁴⁴
- Hu Honua’s request contains a request of preferential rates for the purchase of renewable energy produced in conjunction with agricultural activities.⁴⁵
- Hu Honua provided a Pro Forma describing the cost structure of the project.⁴⁶
- Hu Honua provided a description regarding the sources, types, and amounts of funding for the proposed project.⁴⁷

The Consumer Advocate contends, however, that the Commission’s determination regarding Hu Honua’s request for preferential rates should depend on, at least, Hu Honua providing an updated project schedule and not based on a schedule received in June 2015. The Consumer Advocate recommends that Hu Honua provide an updated project schedule and address the likelihood or risk that the project may not qualify for the necessary tax credits.

More broadly, the Commission also should consider whether simply meeting the minimum set forth in Docket No. 2015-0324 should be adequate to justify approval of preferential rates. Furthermore, along the lines that were raised in the past regarding the agricultural activities, there are remaining questions and concerns that should be

⁴⁴ Letter Request, Exhibit B, at 1.

⁴⁵ Letter Request, Exhibit B, at 5-8.

⁴⁶ Letter Request, Exhibit B, at 265.

⁴⁷ Letter Request, Exhibit B, at 266-267.

addressed before rates under this statutory provision should be granted. That is, while assertions are being made about the potential benefits associated with Hu Honua and the associated agricultural activities, Hu Honua has also made clear that, while there may be a preference to use local feedstock, they are not committing to using only local agricultural feedstock and would like flexibility to bring in feedstock from other sources. This position raises concerns since, if the feedstock is brought in from outside of the state, it would not be consistent with the intent of § 269-27.3 and would also raise other questions regarding whether imported feedstock – even if it is biomass - should be authorized as it results in greater risks in terms of fuel supply, money leaving the state, and other consequences that renewable energy is supposed to mitigate or eliminate.

Finally, the Consumer Advocate recognizes that the Commission previously established that "agricultural activities" should follow the definition set forth in HRS § 269-1, and is not limited to the operations of "existing, local, bona fide farmers." In Docket No. 2015-0324, Maui Electric Company, Inc. ("Maui Electric") argued that "agricultural activities", as defined in HRS § 269-1, is only intended to apply to "existing, local, bona fide farmers."⁴⁸ The Commission in Decision and Order No. 33945 found, consistent with the Hearings Officer's assessment,⁴⁹ that:

⁴⁸ Hawaiian Electric Company, Inc. and Maui Electric Company, Limited's Opening Brief, Declaration of Sharon Suzuki, Declaration of Ronald Cox, and Certificate of Service ("Maui Electric Opening Brief"), filed in Docket No. 2015-0324 on January 29, 2016, at 16.

⁴⁹ Page 41 of the Hearing Officer's Recommended Prehearing Conference Order, filed on April 19, 2016, in Docket No. 2015-0324, states that:

... nothing in the plain language of "agricultural activities" in HRS § 269-1 supports this narrow interpretation. On the contrary, the statute is broadly-worded and appears to contemplate the cultivation and processing of crops for nonfood uses. Given the absence of ambiguity, there is no basis for reading in MECO's additional language that the "agricultural activities" be conducted by "existing, local, bona fide farmers."

...the pertinent statutes clearly do not provide any such requirement. HRS § 269-1 states, in pertinent part, that “ ‘agricultural activities’ means a commercial agricultural... facility or pursuit conducted, in whole or in part, including... plant and animal production for nonfood uses; the planting, cultivating, harvesting, and processing or crops...” Further, a review of the legislative history and context of HRS § 269-27.3 does not suggest, or provide any indication, that the legislature intended to require anything more than *de minimis* agricultural activity...⁵⁰

That said, while *de minimis* agricultural activity may be sufficient for an entity to submit a bona fide request for preferential rates pursuant to HRS § 269-27.3, the Consumer Advocate offers that the extent to which a given preferential rate may be justified should be a function of the extent to which the proposed facility will utilize local agricultural activities in its renewable energy production. Hu Honua has put forward in its Request for Preferential Rates a proposed rate based on certain assumptions regarding its utilization of agricultural-based feedstock. However, Hu Honua also indicates in its IR responses some uncertainty regarding both the extent to which biomass versus biofuel may be used as well as the extent to which these will be sourced locally.

(a) Reasonableness of Preferential Rates

If the Commission deems Hu Honua’s request for preferential rates under HRS § 269-27.3 a bona fide request, then the Commission still has the subsequent authority and obligation to assess the reasonableness of that request for preferential rates. In response to CA/Hu Honua-IR-7, Hu Honua stated that its final site and operational layout calls for:

⁵⁰ Decision and Order No. 33945, at 47.

One large biodiesel tank of approximately 150,000 gallons and sized to hold a sufficient volume of back-up biodiesel to ensure that: (1) the plant can fulfill the PPA's firm capacity obligations (including start-up) without a risk of interruption of biodiesel supply due to uncontrollable factors; and (2) maintain flame stabilization in the plant to accommodate fluctuations in electricity production arising from utility dispatch... In addition, a smaller biodiesel tank of approximately 1,000 gallons will be sited to refuel biomass handling equipment associated with log and chip deliveries from the field.

Hu Honua further stated in response to CA/Hu Honua-IR-11 that "there isn't a specific volume of biodiesel that will be held at any one time" and that the "consumption of biodiesel at the facility depends on numerous and interdependent factors[,] which individually and collectively cannot be predicted with any reasonable degree of certainty in order to establish an annual level of [biodiesel] usage..."⁵¹ Regarding biofuel supply, Hu Honua stated:

When it becomes necessary prior to commercial operations, biofuel will be sourced from multiple suppliers on an as-needed basis under simple short-term supply agreements that comply with the provisions of the PPA.⁵²

HHB prefers to source its biodiesel from local sources and will evaluate on a typical commercial basis price, delivery schedule, and reliability from all suppliers.⁵³

Regarding the use of non-locally sourced biomass, Hu Honua states that it does not intend to use any non-locally sourced biomass, however:

Even if some portion of its biomass were sourced non-locally, HRS § 269-27.3 would still apply... since the Facility would still produce enough energy "in conjunction with" the significant local agricultural activities described in the Request for Preferential Rates.⁵⁴

⁵¹ Response to CA/Hu Honua-IR-11.a. and b.

⁵² Response to CA/Hu Honua-IR-13.b.1.b.

⁵³ Response to CA/Hu Honua-IR-11.d.

⁵⁴ Response to CA/Hu Honua-IR-11.d.2.

In the use of term “local,” the Consumer Advocate notes that as it related to HRS § 269-27.3, the intent is clear that the “agricultural activities,” should be locally produced. Section 1 of Act 185 (2009), which codified HRS § 269-27.3, states in relevant part:

The legislature also finds that renewable energy creates the maximum benefit to the State when it is **locally produced**. Renewable energy sources that complement the production of agricultural products are especially desirable. These sources provide for food and fiber **self-sufficiency** while also providing electricity. It is in the interest of the State to encourage the synergy between agricultural production and renewable energy production.⁵⁵ (emphasis added)

The Consumer Advocate maintains that an assessment regarding the reasonableness of Hu Honua’s requested preferential rates cannot be made without further understanding 1) the likelihood that Hu Honua will have access to the agricultural feedstock necessary to meet its capacity commitments, 2) the extent to which biofuel may be used in lieu of biomass to generate renewable energy, and 3) the extent to which Hu Honua may substitute non-locally sourced biomass for locally-sourced biomass in its operations. While the ability to submit a bona fide request for preferential rates pursuant to § 269-27.3 may only require, as a threshold, *de minimis* agricultural activity,⁵⁶ the

⁵⁵ Section 1 of Act 185, 9:16.

⁵⁶ While the Consumer Advocate maintains that the legislative intent behind Act 185 could be legally interpreted to support only independent agricultural operations that contribute to the food and fiber self-sufficiency of the state (see the Consumer Advocate’s Response to PUC-CA-IR-1.c, filed on December 1, 2021), and so should produce agricultural products beyond just those intended for use by the renewable energy facility, even under the Commission’s current interpretation that the phrase “renewable energy produced in conjunction with agricultural activities” includes “projects regardless of whether or not the production or generation of renewable energy is for the sole purpose of the agricultural activities” (Decision and Order No. 33945, at 51), the legislative intent strongly implies that even minimal agricultural activities or those solely dedicated to renewable energy production should occur in the state.

finding that the proposed preferential rates are justified should require a showing that the agricultural feedstock will be available, will be utilized, and will be locally sourced. Otherwise, it will be difficult to establish that the benefits of the preferential rates outweigh any cost premium that is borne by consumers.

As noted by the Commission in its Decision and Order No. 31759, filed on December 23, 2013, in Docket No. 2012-0185, “Because HELCO’s renewable energy generation output is in excess of the statutory forty percent (40%) level, for any new generation project (renewable or fossil) . . . , HELCO must demonstrate that the project provides cost reduction benefits to ratepayers, directly or indirectly, by improving and maximizing the integration of additional lower cost renewable energy.”⁵⁷ It is not disputed that the proposed agreement will initially increase and there are disputes whether the proposed agreement will reduce customer rates and bills in later years. A more compelling case would demonstrate savings in every year.

If sufficient evidence regarding the benefits of the project were provided, the Commission might find that the contract is reasonable and in the public interest.⁵⁸ However, as already noted, due to the remaining concerns and questions regarding the benefits, it is unclear whether the Commission has sufficient evidence to make such a finding. If Hu Honua can provide additional and reliable support for the purported direct and indirect benefits, this could give the Commission sufficient evidence. In fact, the Consumer Advocate suggests that Hawaii Electric Light and Hu Honua give thought to

⁵⁷ Decision and Order No. 31759, at 96.

⁵⁸ This standard is reflected in the Commission’s Decision and Order No. 31759, at 3.

the means by which it might offer guarantees or commitments to ensure that the local community and Hawaii Electric Light customers will receive the purported benefits.

F. CONDITIONS IF APPROVED.

The Consumer Advocate is still assessing the Project and believes that it is premature to firmly recommend any conditions tied to approval of the Amended and Restated PPA. However, it notes potential conditions and guarantees discussed earlier in the proceedings:

- Rather than just suggesting that the Project could support the retirement of existing fossil fueled generation as a basis to approve the Amended and Restated PPA, Hawaii Electric Light should provide a commitment plan of accelerated unit retirements that will help realize the purported benefits while still safely, reliably, and cost-effectively provide utility services.
- Requiring the filing of a fuel/feedstock report by Hu Honua to evaluate whether there are any cost savings that should be passed to customers.
- Requiring the filing of direct benefits from the Hu Honua project, such as the number of jobs and payroll.
- Requiring the filing of reports to address assertions offered as benefit and justification for the preferential rate request, such as reporting on the total amount of locally sourced feedstock burned in each year, the revenues and benefits associated with the harvesting and use of the feedstock, the forestry management plan - including the total annual amount of replanted trees and jobs associated with the replanting, to assess whether the operations of Hu Honua is carbon neutral or

not, and Hu Honua's carbon sequestration plan. Such reporting could be used to cross-check any periodic information offered by Hu Honua in relation to its carbon neutrality commitment.

- Requiring the filing of reports on community outreach activities to provide timely information on efforts to address remaining community concerns.

III. RECOMMENDATION.

Based upon the above, the Consumer Advocate hereby states that, at this time, due to remaining questions and concerns, it is unable to recommend approval of the proposed Project. However, the Consumer Advocate takes note of the fact that Hu Honua does represent a renewable energy project that intends to rely on locally produced agricultural biomass (and/or biofuels), at least primarily, which could provide benefits to the island of Hawaii's agricultural industry. There are, however, remaining questions about whether the benefits have been adequately supported to assess whether verifiable benefits might exceed the costs. Throughout the document, the Consumer Advocate has offered suggested areas where Hawaii Electric Light and/or Hu Honua could provide additional evidence or commitments that should facilitate the Commission's decision on this matter, and the Consumer Advocate intends to continue to assess the Project through the evidentiary hearing and is open to accounting for any additional evidence or commitments offered by the applicants.

DATED: Honolulu, Hawaii, Deceber 21, 2021.

Respectfully submitted,

By /s/ Dean Nishina

DEAN NISHINA

Executive Director

DIVISION OF CONSUMER ADVOCACY

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S PREHEARING STATEMENT OF POSITION** was duly served upon the following parties electronically to the e-mail addresses below pursuant to HAR § 16-601-21(d) as modified by Order No. 37043 Setting Forth Public Utilities Commission Emergency Filing and Service Procedures Related to COVID-19, filed on March 13, 2020.

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DATED: Honolulu, Hawaii, December 21, 2021.

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FILED

2021 Dec 28 PM 16:16

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The foregoing document was electronically filed with the State of Hawaii Public Utilities Commission's Document Management System (DMS).